

CLAIMS

1. A high purity Ru powder wherein the content of the respective alkali metal elements such as Na and K is 10 wtppm or less, and the content of Al is in the range of 1 to 50 wtppm.
2. A high purity Ru powder wherein the content of Al is in the range of 5 to 20 wtppm.
3. The high purity Ru powder according to claim 1 or claim 2, wherein the total content of transition metal elements such as Fe, Ni, Co, Cr and Cu is 100 wtppm or less, and the content of the respective radioactive elements such as U and Th is 10 wtppb or less.
4. The high purity Ru powder according to any one of claims 1 to 3, wherein the purity excluding gas components such as oxygen, nitrogen and hydrogen is 99.99% or higher.
5. The high purity Ru powder according to claim 4, wherein the content of oxygen is 100 wtppm or less.
6. A sputtering target obtained by sintering the high purity Ru powder according to any one of claims 1 to 5, and a thin film obtained by sputtering said target.
7. A manufacturing method of the high purity Ru powder according to any one of claims 1 to 5, wherein Ru raw material having a purity of 3N (99.9%) or less is used as an anode and electrolytic refining is performed in a solution.